



CTC Laboratories, Inc.



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CNAS L5365

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TEST REPORT

Report No. : **CTC20230973E08**

Applicant : **Lumi United Technology Co., Ltd**

Address..... : Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

Manufacturer..... : Lumi United Technology Co., Ltd

Address..... : Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

Product Name : **Water Leak Sensor T1**

Trade Mark : **Aqara**

Model/Type reference..... : WLS-S01

Listed Model(s) : SJCGQ12LM, SJCGQ12LM-G0, WL-S02D

Standard : **EN 62479: 2010**
BS EN 62479: 2010

Date of receipt of test sample...: Apr. 21, 2023

Date of testing..... : Apr. 22, 2023 ~ Apr. 28, 2023

Date of issue..... : Apr. 29, 2023

Result..... : **PASS**

Compiled by:

(Printed name+signature)

Terry Su

Terry Su

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Eric Zhang

Eric Zhang

Approved by:

(Printed name+signature)

Totti Zhao

Totti Zhao

Testing Laboratory Name : **CTC Laboratories, Inc.**

Address..... : 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[EN 62479: 2010](#) – Assessment of the compliance of low-power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

[BS EN 62479: 2010](#) – Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)

1.2. Report version

Revised No.	Date of issue	Description
01	Apr. 29, 2023	Original

1.3. Test Facility

CTC Laboratories, Inc.

Add: 2/F., Building 1 and 1-2/F., Building 2, Jiaquan Building, Guanlan High-Tech Park, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 951311, Aug 26, 2017.





2. GENERAL INFORMATION

2.1. Client Information

Applicant:	Lumi United Technology Co., Ltd
Address:	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China
Manufacturer:	Lumi United Technology Co., Ltd
Address:	Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China

2.2. General Description of EUT

Product Name:	Water Leak Sensor T1
Trade Mark:	Aqara
Model/Type reference:	WLS-S01
Listed Model(s):	SJCGQ12LM, SJCGQ12LM-G0, WL-S02D
Model Difference:	All these models are identical in the same PCB, layout and electrical circuit, only named differently for marketing purpose.
Power supply:	3Vdc from button battery
Hardware version:	V1.0.1
Software version:	V1.0.1
Antenna type:	PCB Antenna
Antenna gain:	2dBi
Zigbee	
Modulation:	O-QPSK
Operation frequency:	2405-2480MHz
Channel number:	16
Channel separation:	5 MHz





3. TEST ITEM AND RESULTS

3.1. RF Exposure

Limit

20mW (According to the table A.1)

Table A.1 – Example values of SAR-based P_{\max} for some cases described by ICNIRP, IEEE Std C95.1-1999 and IEEE Std C95.1-2005

Guideline / Standard	SAR limit, SAR_{\max} W/kg	Averaging mass, m g	P_{\max} mW	Exposure tier ^a	Region of body ^a
ICNIRP [1]	2	10	20	General public	Head and trunk
	4	10	40	General public	Limbs
	10	10	100	Occupational	Head and trunk
	20	10	200	Occupational	Limbs
IEEE Std C95.1-1999 [2]	1,6	1	1,6	Uncontrolled environment	Head, trunk, arms, legs
	4	10	40	Uncontrolled environment	Hands, wrists, feet and ankles
	8	1	8	Controlled environment	Head, trunk, arms, legs
	20	10	200	Controlled environment	Hands, wrists, feet and ankles
IEEE Std C95.1-2005 [3]	2	10	20	Action level	Body except extremities and pinnae
	4	10	40	Action level	Extremities and pinnae
	10	10	100	Controlled environment	Body except extremities and pinnae
	20	10	200	Controlled environment	Extremities and pinnae

^a Consult the appropriate standard for more information and definitions of terms.

Test Results

Type	Test frequency	EIRP (dBm)	Output power (mW)	Limit (mW)	Results
Zigbee	2405MHz	11.67	14.68	20.00	Pass
	2440MHz	11.70	14.79		
	2480MHz	11.48	14.06		

Note: For a more detailed features description, please refer to the RF Test Report.

*****THE END*****

